WHAT IS CLAIMED IS:

1. An isolated polypeptide having histidine ammonia lyase activity, wherein said histidine ammonia lyase activity is not substantially decreased in the presence of a histidine analog.

2. A polypeptide according to claim 1, wherein the histidine analog is histidinol.

3. An isolated polypeptide according to claim 1, comprising a sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, and SEQ ID NO: 6.

4. An isolated polypeptide according to claim 3, wherein the polypeptide has a monomeric molecular weight between about 30,000 to 70,000 daltons.

5. An isolated polypeptide according to claim 4, wherein the polypeptide has a monomeric molecular weight of about 56,000 daltons.

6. A method for PEGylating a polypeptide, comprising reacting a PEG with the polypeptide according to claim 1.

7. A method of treatment, comprising administering to a patient suffering from a viral infection a therapeutic amount of a polypeptide having histidine ammonia lyase activity.

8. A method according to claim 7, wherein the histidine ammonia lyase activity is not substantially decreased in the presence of a histidine analog.

9. A method according to claim 8, wherein the histidine analog is histidinol.

10. A method according to claim 8, further comprising administering to a patient in need of treatment a therapeutic amount of a histidine analog.

11. A method according to claim 8, wherein the virus is selected from the group consisting of Herpes Virus Type 1, Herpes Simplex Virus Type 2, Varicella-Zoster Virus, Epstein-Barr virus, Cytomegalovirus, Respiratory Syncytial Virus, and Human Immunodeficiency Virus.

12. A method for treating a patient suffering from a cancer, comprising administering to the patient suffering from said cancer a therapeutic amount of the polypeptide in claim 1 and a therapeutic amount of a histidine analog.

13. A method for treating disease, comprising administering to a patient a therapeutically effective amount of a polypeptide having histidine ammonia lyase activity, and administering to said patient a therapeutically effective amount of a chemotherapeutic agent or a retroviral vector.

14. A method according to claim 13, wherein upon the administration of said polypeptide, non-diseased cells of said patient enter a reversible quiescent state.

15. A method according to claim 13, wherein the polypeptide is a PEGylated polypeptide.

16. A method for delivering an immunosuppressant to a patient, comprising: administering to a patient a therapeutically effective amount of a polypeptide having histidine ammonia lyase activity, wherein said polypeptide generates trans-urocanic acid (t-UA) *in vivo*; and subjecting the patient to an irradiating agent, wherein said irradiating agent causes the photoisomerization of t-UA to its cis isomer (c-UA), and wherein said cis isomer comprises an immunosuppressive property.

17. A method according to claim 16, wherein the irradiating agent is UVB irradiation, and wherein the polypeptide is a PEGylated polypeptide.

18. A method according to claim 17, wherein the patient has an immune system disorder.

19. A method according to claim 18, wherein the UVB radiation is localized.

20. A method according to claim 16, further comprising administering to the patient a transplanted organ.

21. An isolated DNA sequence comprising SEQ ID NO: 7.

22. An expression vector comprising the DNA sequence of claim 21.

23. A method for treating a patient comprising constructing an expression vector according to claim 22 and introducing said expression vector into the patient.